Cables and connectors

MTP® trunk cable assemblies

• OS1/2, OM1, OM2, OM3, OM4 fibre grades
• 12, 24, 48, 72, 96 and 144 core single jacket constructions
• OFNR, OFNP and LSZH jacket types available
• Female (standard) and Male MTP® connectors
• Polarity method A, B or C
• ISO 9002 factory controlled, terminated and tested

Overview

Our MTP® multicore trunk assemblies drastically reduce initial installation and ongoing maintenance costs with their efficient plug and play architecture.

They are available in a wide variety of fibre types and jackets in single 12, 24, 48, 72, 96 and 144 core constructions.

Our MTP® trunks are constructed using only the highest quality components. Standard MTP® as well as low loss Elite versions are offered featuring low insertion loss for demanding high speed networks where power budgets are critical.

Benefits

• MTP® interface - MTP® US Conec brand components feature superior optical and mechanical mating properties
• Optimized performance - Assemblies constructed with low loss MTP® Elite discreet Premium connectors and OM4 fibre assure low insertion losses and power penalties in tight power budget, high speed network environments
• High density - The microcable construction drastically reduces the amount of space required in cable pathways

• Rapid deployment - designed as a modular system, initial installation and future architectural changes
• Reliability- Strict ISO controlled manufacturing standards and extensive QC combined with superior component performance guarantees a product of the highest standards

Applications

• High density architectures
• Storage area networking fibre channel
• Parallel optics
• Infiniband
• Emerging 40 Gb and 100 GBE protocols

Standard compliance

• TIA/EIA-568-C.3 and ISO/IEC 11801
• IEC-61754-7 & EIA/TIA-604-5
• NFPA 262 (OFNP) or IEC 60332 (LSZH)
• IEC-61754-20 (LC) & IEC-61754-14 (SC)
• Compliant to Directive 2002/95/EC (RoHS) and REACH SvHC
• IEC-60793
• OFNR, OFNP and LSZH available

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Technetix Group Limited
e: sales@technetix.com    w: www.technetix.com
## Specifications

### Fibre grade

- OS1/OS2, OM1, OM2, OM3, OM4 (ISO/IEC 60793)

### Cable specification

- **Microcable:** 12, 2, 48, 72, 96, 144 cores (ISO/IEC 60793)
  - Max OD: Max OD 12 cores 4.5 ± 0.3 mm / Max OD 24 cores 4.5 x 7.4 ± 0.3 mm
  - Jacket material: OFNR, OFNP (NFPA 262), LSZH (IEC 60332), Jacket colour: Yellow (OS1/OS2), Orange (OM1, OM2), Aqua (OM3), Purple (OM3), Erika Violet (OM4)

### Connectors

- **MTP® US Conec** (IEC-61754-7 & EIA/TIA-604-5)
  - Boot Colour: Black / Body Sleeve Color: MM (Beige), MM Elite (Aqua), SM (Green), SM Elite (Yellow)

### Packaging

- 12 Core >100m = Reel, 24 Core >50m = Reel, 48 Core >20m = Reel, 72+ Core = Reel Automatically

### Operating temperature

- -10 ~ +60°C

### Installation temperature

- -40 ~ +70°C

## Cable performance

### Fibre type (ISO/IEC 11801)

<table>
<thead>
<tr>
<th>Fibre type (ISO/IEC 11801)</th>
<th>OS1/OS2</th>
<th>OM1</th>
<th>OM2</th>
<th>OM3</th>
<th>OM4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attenuation coefficient [db/km]</td>
<td>≤ 0.38 Max (1300nm)</td>
<td>≤ 3.5 Max (850nm)</td>
<td>≤ 3.5 Max (850nm)</td>
<td>≤ 3.5 Max (850nm)</td>
<td>≤ 3.5 Max (850nm)</td>
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<tr>
<td></td>
<td>≤ 0.25 Max (1300nm)</td>
<td>≤ 1.5 Max (1300nm)</td>
<td>≤ 1.5 Max (1300nm)</td>
<td>≤ 1.5 Max (1300nm)</td>
<td>≤ 1.5 Max (1300nm)</td>
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<tr>
<td></td>
<td>≤ 0.34 Typ (1550nm)</td>
<td>≤ 2.9 Typ (850nm)</td>
<td>≤ 2.7 Typ (850nm)</td>
<td>≤ 2.7 Typ (850nm)</td>
<td>≤ 2.7 Typ (850nm)</td>
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<tr>
<td></td>
<td>≤ 0.19 Typ (1550nm)</td>
<td>≤ 1.2 Typ (1300nm)</td>
<td>≤ 0.9 Typ (1300nm)</td>
<td>≤ 0.9 Typ (1300nm)</td>
<td>≤ 0.9 Typ (1300nm)</td>
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<tr>
<td>Minimum bandwidth: Overfilled launch [Mzh-km]</td>
<td>NA</td>
<td>≥ 200 (850nm)</td>
<td>≥ 500 (850nm)</td>
<td>≥ 500 (850nm)</td>
<td>≥ 500 (850nm)</td>
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<tr>
<td>Minimum bandwidth: Laser effective modal bandwidth [Mzh-km]</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>≥ 2000 (850nm)</td>
<td>≥ 4700 (850nm)</td>
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## Connector performance

<table>
<thead>
<tr>
<th>Connector mating</th>
<th>IL average</th>
<th>IL MAX</th>
<th>Return loss</th>
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</thead>
<tbody>
<tr>
<td>MTP® Elite (MM)</td>
<td>0.10 dB</td>
<td>0.35 dB</td>
<td>NA</td>
</tr>
<tr>
<td>MTP® (MM)</td>
<td>0.20 dB</td>
<td>0.60 dB</td>
<td>NA</td>
</tr>
<tr>
<td>MTP® Elite (SM)</td>
<td>0.10 dB</td>
<td>0.35 dB</td>
<td>&gt;60 dB</td>
</tr>
<tr>
<td>MTP® (SM)</td>
<td>0.25 dB</td>
<td>0.75 dB</td>
<td>&gt;60 dB</td>
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</table>
### Cables and connectors

#### MTP® trunk cable assemblies

![Diagram of MTP trunk cable assemblies](image)

#### Ordering information

**Part number generator**

<table>
<thead>
<tr>
<th>Connector END A</th>
<th>Connector END B</th>
<th>Gender A</th>
<th>Gender B</th>
<th>Fiber type</th>
<th>Fiber count</th>
<th>Cable length (m)</th>
<th>Polarity method</th>
<th>Colour</th>
<th>Jacket type</th>
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<tbody>
<tr>
<td>MTP® standard</td>
<td>MTP® standard</td>
<td>Female F</td>
<td>Female F</td>
<td>OS1/OS2</td>
<td>12</td>
<td>xx</td>
<td>A</td>
<td>Aqua</td>
<td>OFNR (standard) RI</td>
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<td>MTP® Elite® MTPE</td>
<td>MTP® Elite® MTPE</td>
<td>Male M</td>
<td>Male M</td>
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<td>Orange</td>
<td>LSZH LS</td>
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<td>OM4/OM4</td>
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<td>Erika violet</td>
<td>ER</td>
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